

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **SHAPUR SAHBA**

Serial No.:

Title: **MULLTI-RESONANT DOUBLE-SIDED HIGH-TEMPERATURE  
SUPERCONDUCTIVE MAGNETIC DIPOLE ANTENNA**

Docket No.: **CECOM 5458**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**Exhibits Supporting Petition under 37 CFR § 1.47(b)**

- |     |                                                                                                            |              |
|-----|------------------------------------------------------------------------------------------------------------|--------------|
| 1.  | Standard Form 50 official personnel record                                                                 |              |
| 2.  | Patent Disclosure entitled "Double-Sided<br>HTS Micro-Antennae Configurations<br>(Three Structures)        | 5/3/2000     |
| 3.  | Notice of Recordation of Assignment of<br>U.S. Patent No. 6,403,977 By U.S.<br>Patent And Trademark Office | 6/27/2002    |
| 4.  | E-mail message from the Inventor                                                                           | 8/19/2002    |
| 5A. | E-mail message from the Inventor                                                                           | 11/25/2002   |
| 5B. | E-mail message from the Inventor                                                                           |              |
| 5C. | E-mail message from the Inventor                                                                           |              |
| 6.  | Attempted Fax to Inventor                                                                                  | 5/20-21/2003 |
| 7.  | E-mail message to the Inventor                                                                             | 5/20/2003    |
| 8.  | E-mail message to the Inventor                                                                             | 6/11/2003    |
| 9.  | Address Card                                                                                               |              |
| 10. | Letter to the Inventor P.O. Box requesting review of<br>CECOM Docket draft patent application              | 7/23/2003    |
| 11. | Letter to the Inventor's home requesting review of<br>CECOM Docket draft patent application                | 7/23/2003    |

12. Envelope of the Exhibit 9 July 23, 2003 letter  
sent to the Inventor's post office box number
13. Envelope of the Exhibit 10 July 23, 2003 letter  
sent to the Inventor's home
14. Internet search for Inventor by name 9/5/2003
15. Internet search for Sonoro R&D Corporation 9/5/2003
16. DA Form 2871-R Invention Rights Questionnaire 5/3/2000
17. 37 CFR Part 500 Uniform Patent Policy For Rights of  
Inventions Made by Government Employees
18. Heinemann vs. United States, 4 Cl. Ct. 564, 223 USPQ (BNA) 282,  
1984 U.S. Cl. Ct. LEXIS 1475 (1984)
19. In the Matter of Howard M. Berlin and Arthur T. Johnson,  
GPB Case No. 10-3989, 1986 Commr. Pat. LEXIS 41; 229  
U.S.P.Q. (BNA) 463 (1986)
20. Halas vs. United States, 28 Fed. Cl. 354, U.S. Claims LEXIS 36 (1993)

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**MEMORANDUM OF LAW SUPPORTING PETITION UNDER 37 CFR § 1.47(b)**

This Memorandum of Law supports a 37 CFR § 1.47(b) Petition to file a patent application on behalf of Dr. Shapur Sahba (the “Inventor”) by demonstrating the Army’s proprietary interest in filing the patent application because the inventor cannot be found or reached. MPEP § 409.03(f) Proof of Proprietary Interest provides that a proprietary interest obtained other than by assignment or agreement to assign may be demonstrated by an appropriate Legal Memorandum concluding that a court of competent jurisdiction would award title of the invention to the 37 CFR 1.47(b) applicant. This Memorandum of Law concludes that the U.S. Court of Federal Claims, as the court of competent jurisdiction in cases involving patent rights of Government employees, would award title to the CECOM Docket No. 5458 invention to the United States Government, as the 37 CFR 1.47(b) applicant in this case.

**FACTUAL SUMMARY**

The Supporting Affidavit states that the Inventor was employed as a GS-12 Electronics Engineer by the U.S. Army Communications-Electronics Command (“CECOM”), Fort Monmouth, New Jersey from August 21, 1995 to January 4, 2002 (Exhibit 1) and that on May 3, 2000, during his Government employment, he submitted the CECOM Docket No. 5458 patent disclosure (Ex. 2) to the CECOM Legal Office for patent prosecution. The Inventor left Government service on January 4, 2002 (Ex. 1)

before the patent application was drafted. During 2002-2003, the Inventor cooperated with the undersigned Patent Attorney in preparing the patent application (Ex. 4, 5A-5C). As the patent application was nearing completion, the Inventor could no longer be found or reached (Ex. 6-15). Based on the Inventor's responses in his completed DA Form 2871-R Invention Rights Questionnaire (Ex. 16), it is respectfully submitted that the Inventor made the CECOM Docket No. 5458 invention as part of his Government employment.

In responding to DA Form 2871-R Invention Rights Questionnaire (Ex. 16) questions 10(a) and (b), the Inventor stated that he spent 500 non-duty working hours on the invention, but that he did not remember the amount of Government time spent on the invention. In responding to questions 11(a) and (b), the Inventor also stated that Government facilities were used for test and characterization of the invention's devices using Government equipment, that the invention's devices could be used as the front-end elements for Transmitter or Receiver communications systems and that Government materials were used for fabricating a prototype. The Inventor's Job Description attached to his DA Form 2871-R (Ex. 16) described his major duties as including planning and conducting projects pertaining to applied research, design, development, test, acquisition and fielding of new, modified or improved Electronics Warfare technology, equipment and systems.

Based on the Inventor's responses to DA Form 2871-R Invention Rights Questionnaire (Ex. 16), it is respectfully submitted that the CECOM Docket No. 5458 invention was made by the Inventor while employed by the Government during a combination of working and off-duty hours, with a contribution of Government facilities, equipment, materials and funds, and that these efforts and expenditures bore a direct relation to, or were made in consequence of, the Inventor's official duties.

## **ISSUE**

Whether the Government would receive title to an invention made by the Inventor as a Government employee during a combination of working and off-duty hours, with a

contribution by the Government of facilities, equipment, materials and funds, which bear a direct relation to, or were made in consequence of, the Inventor's official duties.

## **LEGAL ANALYSIS**

37 CFR Part 500, Uniform Patent Policy For Rights of Inventions Made by Government Employees, (Ex. 17) establishes rules for determining the respective rights of the Government and its employees in inventions made during employment. 37 CFR Part 500 replaced regulations found at 37 CFR § 100, and both were based on Executive Order 10096, as amended by Executive Orders 10930 and 10695. 37 CFR §501.6(a)(1), Criteria for the determination of rights in and to inventions, states in part:

(a) The following rules shall be applied in determining the respective rights of the Government and of the inventor in and to any invention that is subject to the provisions of this part:

(1) The Government shall obtain, except as herein otherwise provided, the entire right, title and interest in and to any invention made by any Government employee:

(i) During working hours, or

(ii) With a contribution by the Government of facilities, equipment, materials, funds or information, or of time or services of other Government employees on official duty, or

(iii) Which bears a direct relation to or is made in consequence of the official duties of the inventor.

Also, 37 CFR §501.6 (a)(3) provides this presumption:

(3) In applying the provisions of paragraphs (a)(1) and (2) of this section to the facts and circumstances relating to the making of a particular invention, it

shall be presumed that an invention made by an employee who is employed or assigned:

...

(ii) To conduct or perform research, development work, or both,

....

falls within the provisions of paragraph (a)(1) of this section...

By applying 37 CFR §501.6 (a)(1) and (a)(3), Criteria for the determination of rights in and to inventions, to the facts in the Supporting Affidavit, it is respectfully submitted that the Government would be granted title to the CECOM Docket No. 5458 invention in a determination of patent rights dispute. Additional support for this position is also found in a number of U.S. Court of Federal Claims cases involving the invention rights of a Government employee.

In Heinemann vs. United States, 4 Cl. Ct. 564, 223 USPQ (BNA) 282, 1984 U.S. Cl. Ct. LEXIS 1475 (1984)(Ex. 18), the U.S. Claims Court, which was the predecessor of the U.S. Court of Federal Claims, held that Executive Order 10096, which is the origin of 37 CFR Part 500, was the proper standard to apply by the court in deciding the respective rights of the Government and its employee in an invention. In that case, the former Government employee brought a patent infringement case against the Government under 28 U.S.C. § 1498. The court considered the former Government employee's claim that title to the invention should be awarded to him under common law principles and then discussed Executive Order 10096 at Heinemann vs. United States, 1984 U.S. Cl. Ct. LEXIS 1475, page 6:

Plaintiff asks this court to find that Executive Order 10096 does not apply to judicial proceedings and therefore the government's rights to the invention at issue should rest solely on the common law. Plaintiff argues:

Executive Order 10096 \* \* \* \* is directed only toward establishing a uniform patent policy for all federal agencies within the Executive Branch.

\* \* \* \*

[A] chief ... purpose of Executive Order 10096 is to expedite the processing of patent applications by the federal agencies so as to obtain the maximum rights in an invention for the Government \* \* \* \*.

\* \* \* \*

Thus, Executive Order 10096 is intended to provide the administrative mechanism necessary for expediting the processing of employee invention disclosures within the Executive Branch. As such, its application is limited to the Executive Branch and the judiciary is to play no role in its implementation.

The court agrees that Executive Order 10096 is clearly meant to establish and maintain uniformity in this field. As the order states, its "purpose \* \* \* \* is to provide for the *administration of a uniform patent policy* for the Government with respect to the domestic rights in inventions made by Government employees *and to prescribe rules and regulations for implementing and effectuating such policy.*" 37 C.F.R. § 100.1 (emphasis added). To provide government employees with the choice of pursuing rights determinations either through their agencies or through this court, and to apply the separate standards of the executive order or the common law according to which forum they ... choose, would frustrate that purpose of the Executive Order and destroy whatever uniformity now exists. As the United States Court of Appeals for the Seventh Circuit noted, the order is "controlling in the [determination of the] status of \* \* \* \*[the government employee's] invention vis-a-vis government patent rights." Kaplan v. Corcoran, 545 F.2d at 1077. By its terms, the order "applies to any invention made by a Government employee." Therefore, the court finds that Executive Order 10096 provides the sole avenue for determining rights in inventions made by government employees. In addition, that determination is to be made by the employing agency, subject to review by the Commissioner of Patents and Trademarks. 37 C.F.R. §§ 100.5-6.

The court remanded the case because of Government misconduct.

37 CFR Part 500, Uniform Patent Policy For Rights of Inventions Made by Government Employees, (Ex. 17) is the current regulation that was formerly found at 37 CFR § 100. In the Matter of Howard M. Berlin and Arthur T. Johnson, GPB Case No. 10-3989, 1986 Commr. Pat. LEXIS 41; 229 U.S.P.Q. (BNA) 463 (1986) (Ex. 19) is an appeal by two Government employees under 37 CFR § 100.7 to the U.S. Commissioner of Patents and Trademarks from a Department of the Army Government Employee Invention Rights Determination. The Commissioner traced the history of 37 CFR § 100.7 and Executive Order 10096 to a 1933 U.S. Supreme Court decision, In the Matter of Howard M. Berlin and Arthur T. Johnson, 1986 Commr. Pat. LEXIS 41, page 4:

On this record, ... it is contended that Berlin and Johnson are entitled to title based on principles announced in United States v. Dubilier Condenser Corp., 288 U.S. 178, 17 USPQ 154 (1933). In Dubilier, 289 U.S. at 187, 17 USPQ at 158, the Supreme Court said:

"One employed to make an invention, who succeeds, during his term of service, in accomplishing that task, is bound to assign to his employer any patent obtained. The reason is that he has only produced that which he was employed to invent. His invention is the precise subject of the contract of employment. A term of the agreement necessarily is that what he is paid to produce belongs to his paymaster. On the other hand, if the employment is general, albeit it covers a field of labor and effort in the performance of which the employee conceived the invention for which he obtained a patent, the contract is not so broadly construed as to require an assignment of the patent." (citations omitted).

After Dubilier, Executive Order 10096 was issued by President Truman. According to the Executive Order, the President indicated that he was taking action "by virtue of authority vested in me by . . . statutes [of the United States]." ...The statutory authority for the President to constitutionally issue the Executive Order was upheld in Kaplan v. Corcoran, 545 F.2d 1073, 192 USPQ 129 (7th Cir.



1976). The Seventh Circuit held that the Executive Order was properly issued based on the President's statutory authority under 5 U.S.C. §§ 301, 3301, and 7301. The Executive Order is thus "controlling in the status of . . . [Berlin and Johnson's] invention vis-a-vis government patent rights." 545 F.2d at 1077, 192 USPQ at 132.

The Executive Order was promulgated "to provide for uniformity among federal agencies in determining the respective rights of the government and its employees in inventions made by the employees." Tresansky, "Patent Rights in Federal Employee Inventions," 67 J. Pat. & Trade. Off. Soc'y 451, 452 (1985). Adherence to the provisions of the Executive Order is essential if the uniformity sought to be established by President Truman and succeeding Presidents is to be achieved. The various agencies of the Government are obligated to apply its provisions.

The Army established that appellants spent 1,500 hours making the invention, that 700 of those hours were on Government time and an additional 160 hours of Government time were spent by other Government employees to make drawings and fabricate and test a model that was made in Government facilities and that the invention was made in consequence of their official duties. The Commissioner affirmed the Army's Determination under 37 CFR § 100.7 that the Government was entitled to title in the invention. Similarly, in Halas vs. United States, 28 Fed. Cl. 354, U.S. Claims LEXIS 36 (1993) (Ex. 20), the U.S. Court of Federal Claims affirmed a Government Determination of Employee Patent Rights finding that the Government had title pursuant to Executive Order 10096, as implemented in 37 CFR Part 500, in a case where a Government employee refused to complete the standard DA Form 2871-R Invention Rights Questionnaire and subsequently filed a patent infringement case against the Government under 28 U.S.C. § 1498 for using the invention.

## CONCLUSION

In summary, it is respectfully submitted that the CECOM Docket No. 5458 invention was made by the Inventor as a Government employee during a combination of working and off-duty hours with a Government contribution of facilities, equipment, materials and funds, and that these efforts and expenditures bore a direct relation to, or were made in consequence of, the Inventor's official duties. It is respectfully submitted that under the 37 CFR §501.6(a)(1) and (3) rules for determining the rights of the Government and its employee to such an invention that the Government would receive title to this invention, and that the precedent from the U.S. Court of Federal Claims supports granting title to this invention to the Government. It is respectfully requested that the 37 CFR § 1.47(b) Petition to file a patent application on behalf of the Inventor by the Army based on the Army's proprietary interest be granted.

21 October 2003

Date

  
GEORGE B. TERESCHUK  
Attorney for Applicant  
Registration No. 37,558  
Tel.: (732) 532-9795

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**SUPPORTING AFFIDAVIT FOR PETITION UNDER 37 CFR § 1.47(b)**

This Affidavit is submitted in support of a Petition filed under the authority of 35 U.S.C. § 118 and 37 CFR § 1.47(b) to file a patent application designated as CECOM Docket No. 5458 entitled "Multi-Resonant Double-Sided High-Temperature Superconductive Magnetic Dipole Antenna," on behalf of Dr. Shapur Sahba. The undersigned Affiant, being duly sworn according to law, deposes and says:

1. The undersigned Affiant is a Patent Attorney for the U.S. Army Communications-Electronics Command, Fort Monmouth, New Jersey, registered to practice before the U.S. Patent And Trademark Office under Registration No. 37,558 and is duly authorized to sign documents relating to patent applications and patent prosecution on behalf of the U.S. Army Communications-Electronics Command, Fort Monmouth, New Jersey (hereinafter "CECOM").

2. Dr. Shapur Sahba (hereinafter the "Inventor") was employed as a GS-12 Electronics Engineer by the Intelligence & Information Directorate of the Research, Development & Engineering Center of the U.S. Army Communications-Electronics Command, ("CECOM") Fort Monmouth, New Jersey from August 21, 1995 to January 4, 2002 (Exhibit 1).

3. On May 3, 2000, during his Government employment, the Inventor submitted a patent disclosure entitled "Double-Sided HTS Micro-Antennae Configurations (Three Structures)," (Ex. 2) to the Intellectual Property Law Division of the CECOM Legal Office. This patent disclosure was designated as CECOM Docket No. 5458 and

assigned to the Affiant for patent prosecution. The Inventor is the sole inventor of the CECOM Docket No. 5458 patent disclosure.

4. On May 3, 2000, in connection with the Inventor's submission of the CECOM Docket No. 5458 patent disclosure (Ex. 2) to the Intellectual Property Law Division of the CECOM Legal Office, the Inventor also submitted a DA Form 2871-R Invention Rights Questionnaire (Ex. 16) providing information for a determination of an inventor's rights in inventions made during Government employment.

5. The Inventor's DA Form 2871-R Invention Rights Questionnaire (Ex. 16) includes a copy of his Job Description for Job Number 01127 at CECOM'S Intelligence And Electronic Warfare Directorate Technology Division. Under the heading Major Duties, para. 1 of the Job Description states, in part:

Plans and conducts projects pertaining to applied research, design, development, testing, initial acquisition and first fielding of new, modified or improved EW [Electronics Warfare] technology, equipment and systems.

(Emphasis Supplied)

The term "EW" is an abbreviation for Electronics Warfare.

6. In response to Question 15 from the DA Form 2871-R Invention Rights Questionnaire (Ex. 16), concerning the duties assigned to the Inventor at the time the invention was made, the Inventor stated that:

I am an Army Researcher working on RF components/systems. My academic and professional background are [sic] working on the subject of superconductivity. As the [sic] Army Engineer/Scientist I work on SIGINT components and related systems, which RF components are the necessary devices for transmitter and receiver systems.

(Emphasis Supplied)

The term "SIGINT" is an abbreviation for Signals Intelligence.

7. In response to Question 11(d) from the DA Form 2871-R Invention Rights Questionnaire (Ex. 16), concerning the use of Government funds actually obligated or expended for the purpose of making the invention, the Inventor stated:

The Antennae, subjects of this invention, are the results of R & D funded by the Army, CECOM, RDEC-I<sup>2</sup>WD.

(Emphasis Supplied)

The term "RDEC" is an abbreviation for the Research, Development & Engineering Center of CECOM, and the term "I<sup>2</sup>WD" is an abbreviation for the Intelligence & Information Directorate of the RDEC.

8. In response to other questions from the DA Form 2871-R Invention Rights Questionnaire (Ex. 16), the Inventor stated:

a. that the invention and preliminary devices were disclosed to the U.S. Navy in 1998 in response to Question 7.

b. that the Inventor expended 500 non-duty hours in making the invention in response to Question 10 (a).

c. that the Inventor did "not remember" the amount of Government time expended in making the invention in response to Question 10 (b).

d. that Government facilities were used for test and characterization of the invention's devices using Government equipment in response to Question 11(a).

e. that the invention's devices could be used as the front-end elements for Transmitter or Receiver communications systems in response to Question 11(b).

f. that "Just a few dollars..." worth of Government materials were used for fabricating a prototype in response to Question 11(a).

9. The CECOM Docket No. 5458 invention was made by the Inventor during working hours as a Government employee at CECOM, with a contribution by the Government of facilities, equipment, materials and funds, which bore a direct relation to, or were made in consequence of, the Inventor's official duties (Ex. 16).

10. 37 CFR Part 500, Uniform Patent Policy For Rights of Inventions Made by Government Employees, (Ex. 17) provides rules for determining the respective rights of the Government and Government employees in inventions made during employment. More specifically, 37 CFR §501.6, Criteria for the determination of rights in and to inventions, states in part:

(a) The following rules shall be applied in determining the respective rights of the Government and of the inventor in and to any invention that is subject to the provisions of this part:

(1) The Government shall obtain, except as herein otherwise provided, the entire right, title and interest in and to any invention made by any Government employee:

(i) During working hours, or

(ii) With a contribution by the Government of facilities, equipment, materials, funds or information, or of time or services of other Government employees on official duty, or

(iii) Which bears a direct relation to or is made in consequence of the official duties of the inventor.

....

11. Based on the facts stated above and 37 CFR §501.6, Criteria for the determination of rights in and to inventions, the Army has a proprietary interest in this patent application.

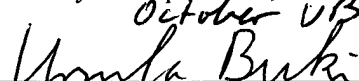
12. Based on the facts stated above and 37 CFR §501.6, Criteria for the determination of rights in and to inventions, the Army should obtain the entire right, title and interest in this patent application.

21 October 2003

Date

  
GEORGE B. TERESCHUK  
Attorney for Applicant  
Registration No. 37,558  
Tel.: (732) 532-9795

Sworn and subscribed before me this  
21st day of ~~September~~ <sup>October</sup>, 2003

  
Ursula Buki, Notary Public

**URSULA BUKI**  
Notary Public of New Jersey  
My Commission Expires May 16, 2005